

Release notes for ENDF/B Development n-071\_Lu\_175  
evaluation

**ENDF**  
**B-VII**.dev

April 26, 2017

- **psyche** Warnings:

1. Non-threshold reaction with Q value differing from PSYCHE's expectations  
*FILE 3 / SECTION 103 / THE CALCULATED Q 2.76583E+05 DISSAGREES WITH THE GIVEN Q 3.12500E+05 (0): Iffy Q*

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FILE 3
SECTION 103
THE CALCULATED Q 2.76583E+05 DISSAGREES WITH THE GIVEN Q 3.12500E+05
```

- **fudge-4.0** Warnings:

1. Missing a channel with a particular angular momenta combination  
*resonances / resolved / MultiLevelBreitWigner (Error # 0): missingResonanceChannel*

WARNING: Missing a channel with angular momenta combination L = 0, J = 2.0 and S = 2.0 for "capture"

2. Potential scattering hasn't converted, you need more L's!  
*resonances / resolved (Error # 1): potentialScatteringNotConverged*

WARNING: Potential scattering hasn't converged by L=0 at E=411.0 eV, xs[0]/xs[0]=100.0% > 0.1%

- **fudge-4.0** Errors:

1. Calculated and tabulated Q values disagree.  
*reaction label 10: n[multiplicity:'2'] + Lu174 (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -7616584.28527832 eV vs -7.81e6 eV!

2. Calculated and tabulated Q values disagree.  
*reaction label 11: n[multiplicity:'3'] + Lu173 (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: -14377403.23291016 eV vs -1.442e7 eV!

3. Calculated and tabulated Q values disagree.  
*reaction label 12: Lu176 + gamma (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: 6338129.411254883 eV vs 6.1914e6 eV!

4. Calculated and tabulated Q values disagree.  
*reaction label 13: H1 + Yb175\_s (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: 362434.8176269531 eV vs 3.125e5 eV!

5. Calculated and tabulated Q values disagree.  
*reaction label 14: He4 + Tm172\_s (Error # 0): Q mismatch*

WARNING: Calculated and tabulated Q-values disagree: 7905844.930541992 eV vs 7.8e6 eV!

- **njoy2012** Warnings:

1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!  
*groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)*

---message from conver---cannot do complete particle production for mt= 16  
only mf4/mf5 provided

2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!  
*groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)*

---message from conver---cannot do complete particle production for mt= 17  
only mf4/mf5 provided

3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!  
*groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)*

---message from conver---cannot do complete particle production for mt= 91  
only mf4/mf5 provided